



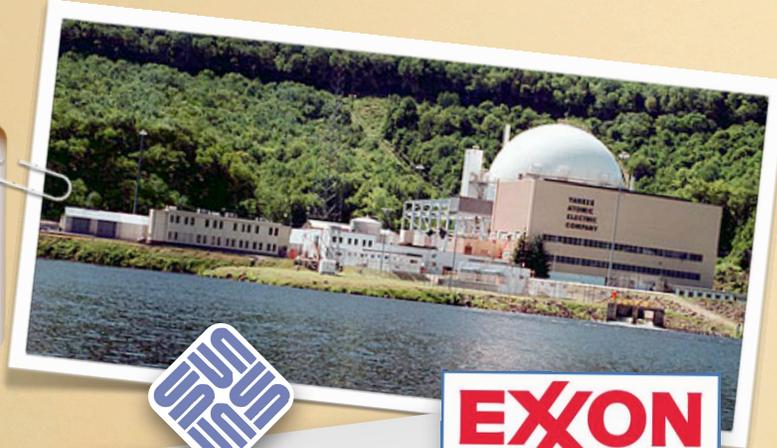
Blue Ribbon Commission on America's Nuclear Future

Subcommittee on Reactor and Fuel Cycle Technology

A Venture Capital Point of View

Ray A. Rothrock
August 30, 2010

Ray A. Rothrock



Venrock
Ray Rothrock

Nuclear Engineer
Entrepreneur
Venture Capitalist

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- Venrock, Managing General Partner
 - + VC for 22 years, 47 deals, 94% IRR
 - + Established energy practice 2004
- Nuclear Engineer 
 - + Professional Nuclear Engineer, 1978-81
 - + Transient Safety & Licensing Engineer for Yankee Rowe, Rowe, Mass '78-'80
 - + Exxon Nuclear, '80-'81
- National Venture Capital Association Executive Committee & Director
- MIT Visiting Committee Nuclear Science and Engineering, 8 years
- Tri Alpha Energy, Chairman of Board 

Venture Capital in the United States

Mission

Identify and sponsor entrepreneurs with world changing ideas

Venture Capital at Work

- 792 firms nationwide
- Over 2000 new companies financed each year
- \$180B under management

Benefit

Allocate scarce capital plus human resources towards opportunities

Results as of 2009

(Thomson Reuters data)

- \$2.9T revenue (22% of GDP)
- 12.1 million jobs (11% of private sector)

VENTURE CAPITAL BUILDS COMPANIES THAT SHAPE THE FUTURE



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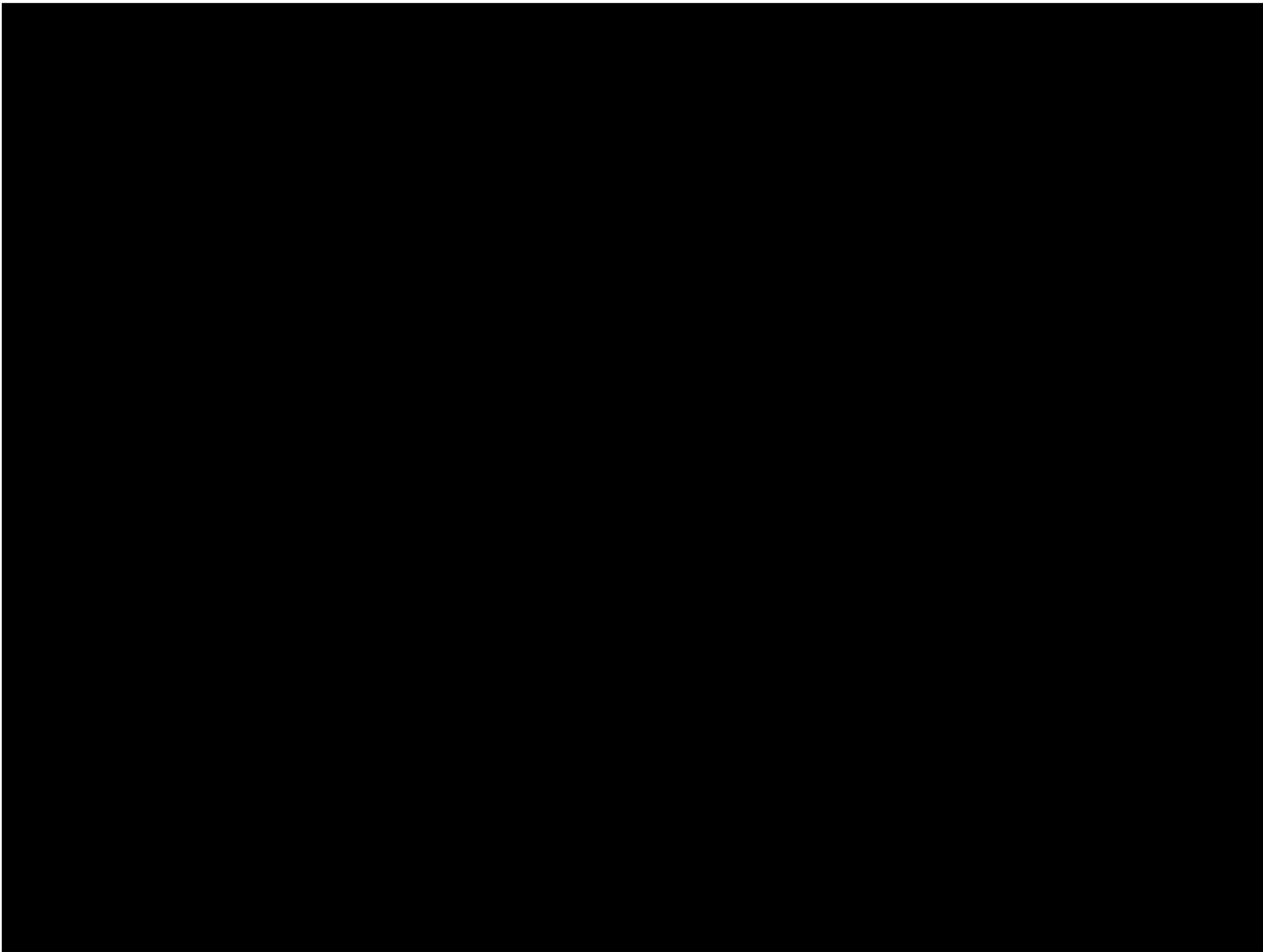
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Regulatory Environment Perspective



Department of Energy

- Weapons management
- Waste management
- Basic science
- Principal source of funds for private efforts in alternative energy

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Nuclear Regulatory Commission

- Nuclear materials focus
- No focus on electricity
- Wealth of nuclear experience - retiring
- No risk/reward paradigm

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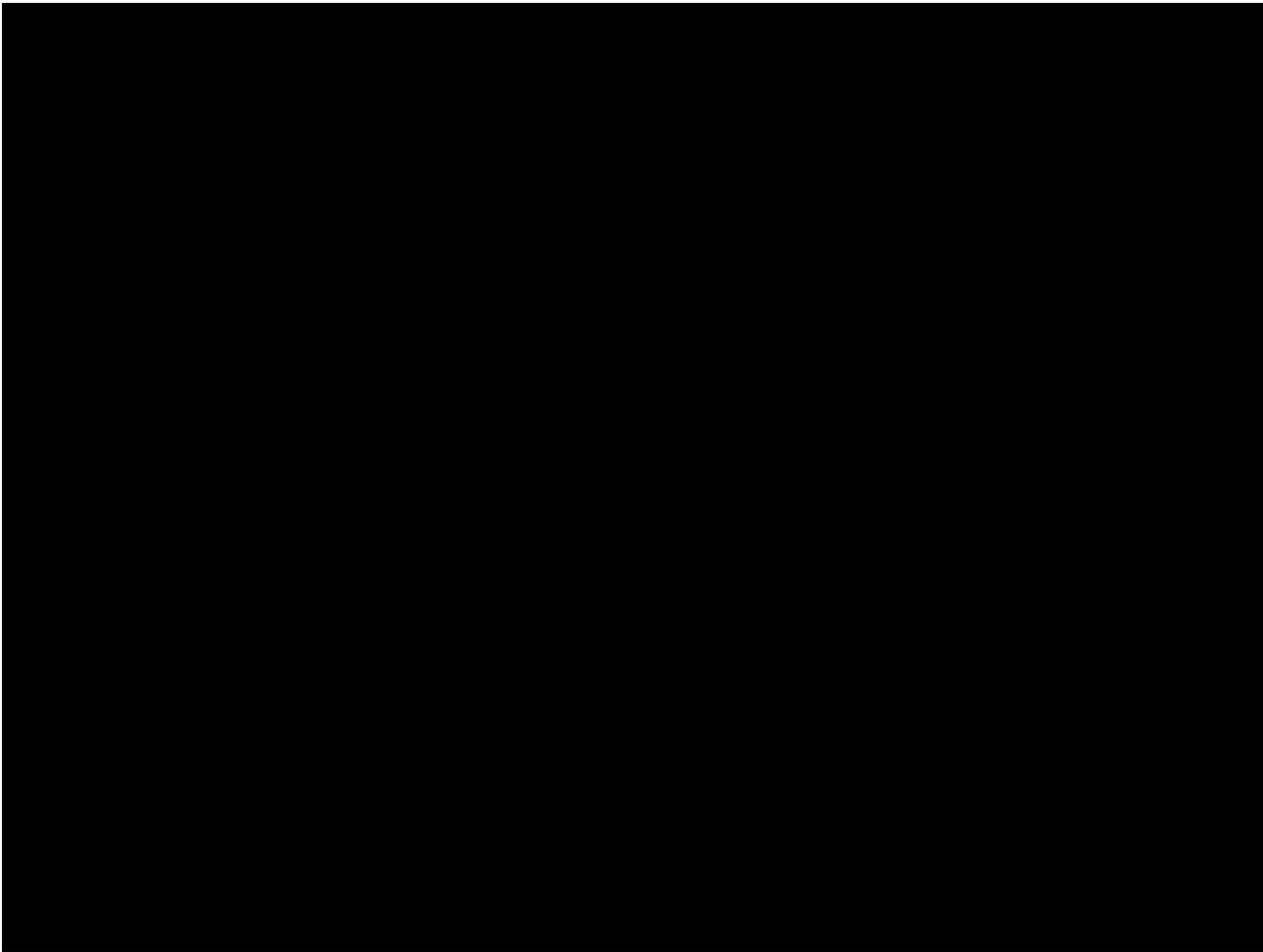


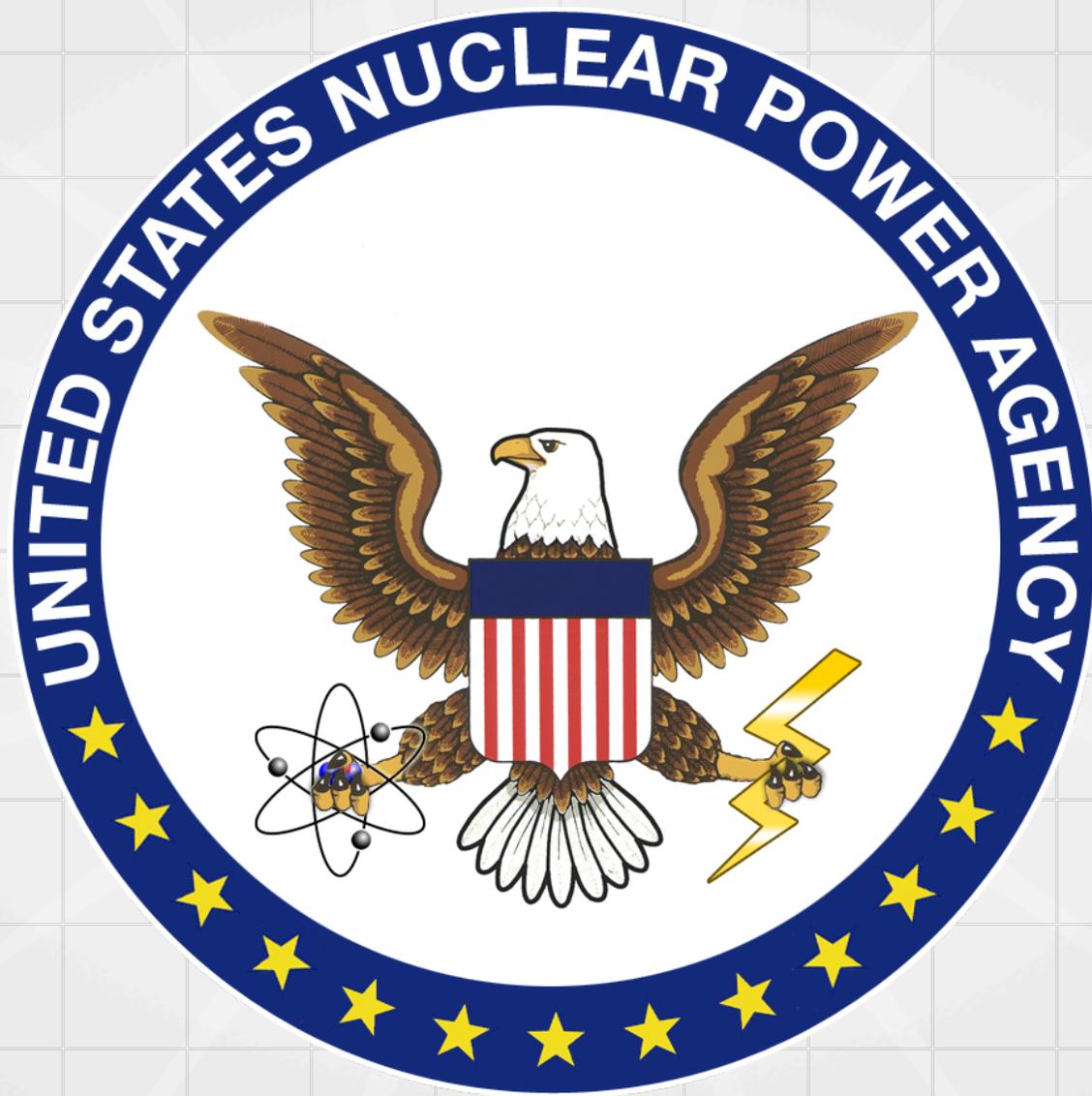
Nuclear Regulatory Commission

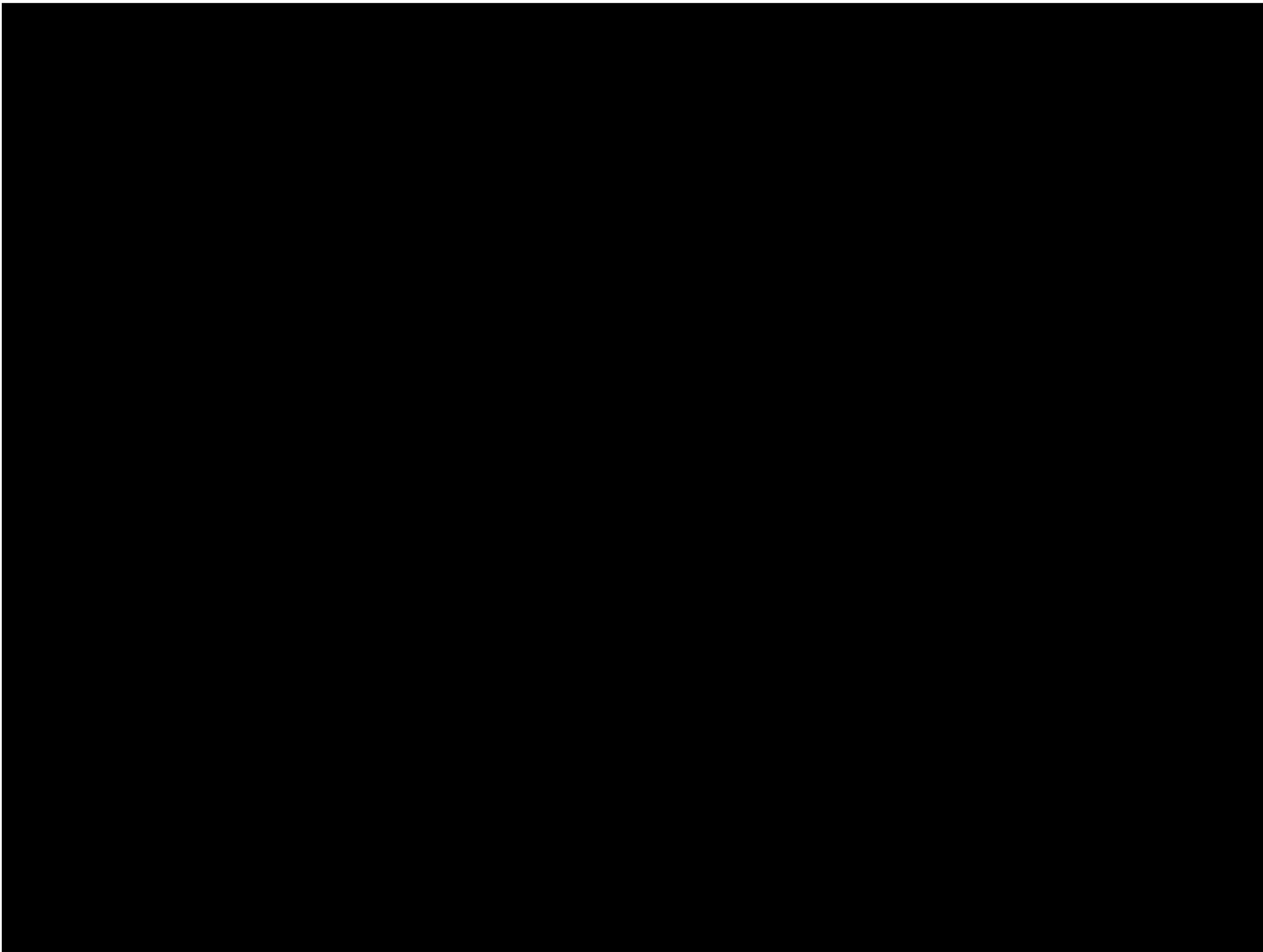
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Neither regulatory body is focused on nuclear power as applied to production of electricity







A Government/Venture Success Story

👍 New drug applications



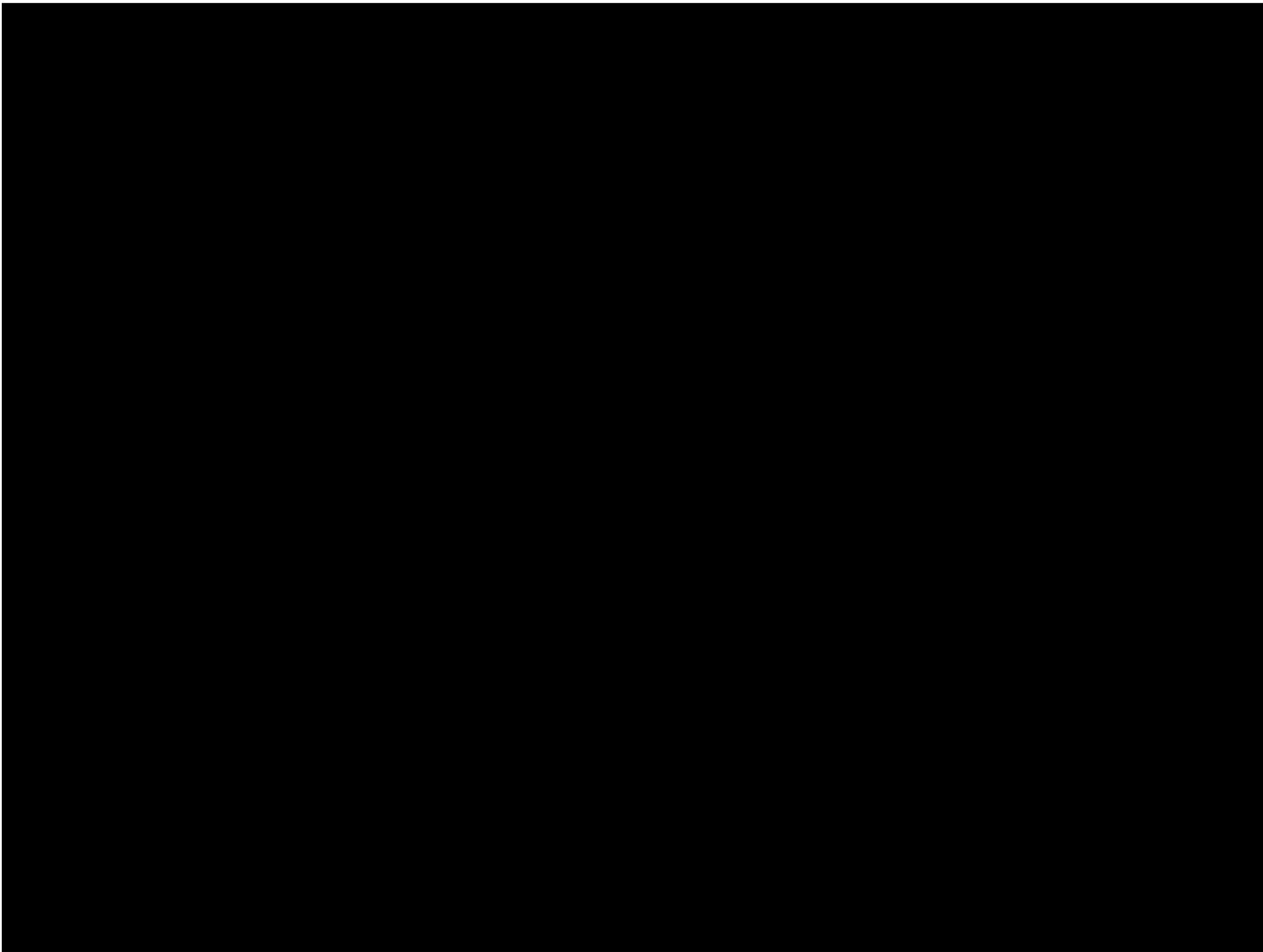
- + Worthy products get to market in a timely manner
- + Works actively with the private sector
- + Informs the public with science-based information

FDA New Drug Process Illustration

Stage	Elapsed Time (Years)	Capital Requirement (Millions)	Purpose	Market Value (Millions)	Probability of Continuing
Pre-Clinical	1-5	\$10-\$50	Pre-human validation	\$10-\$20	10%
Phase I	1-2	\$5-\$20	Safety	\$10-\$50	65%
Phase II	2	\$20-\$50	Efficacy and dose	\$50-\$100	50%
Phase III	3	\$40-\$100	Registration Trial	\$200-\$400	65%
NDA	1	\$20-\$50	Manufacturing	\$500-\$1000	90%



Benefits: Orderly, Predictable, Finite, Conclusive



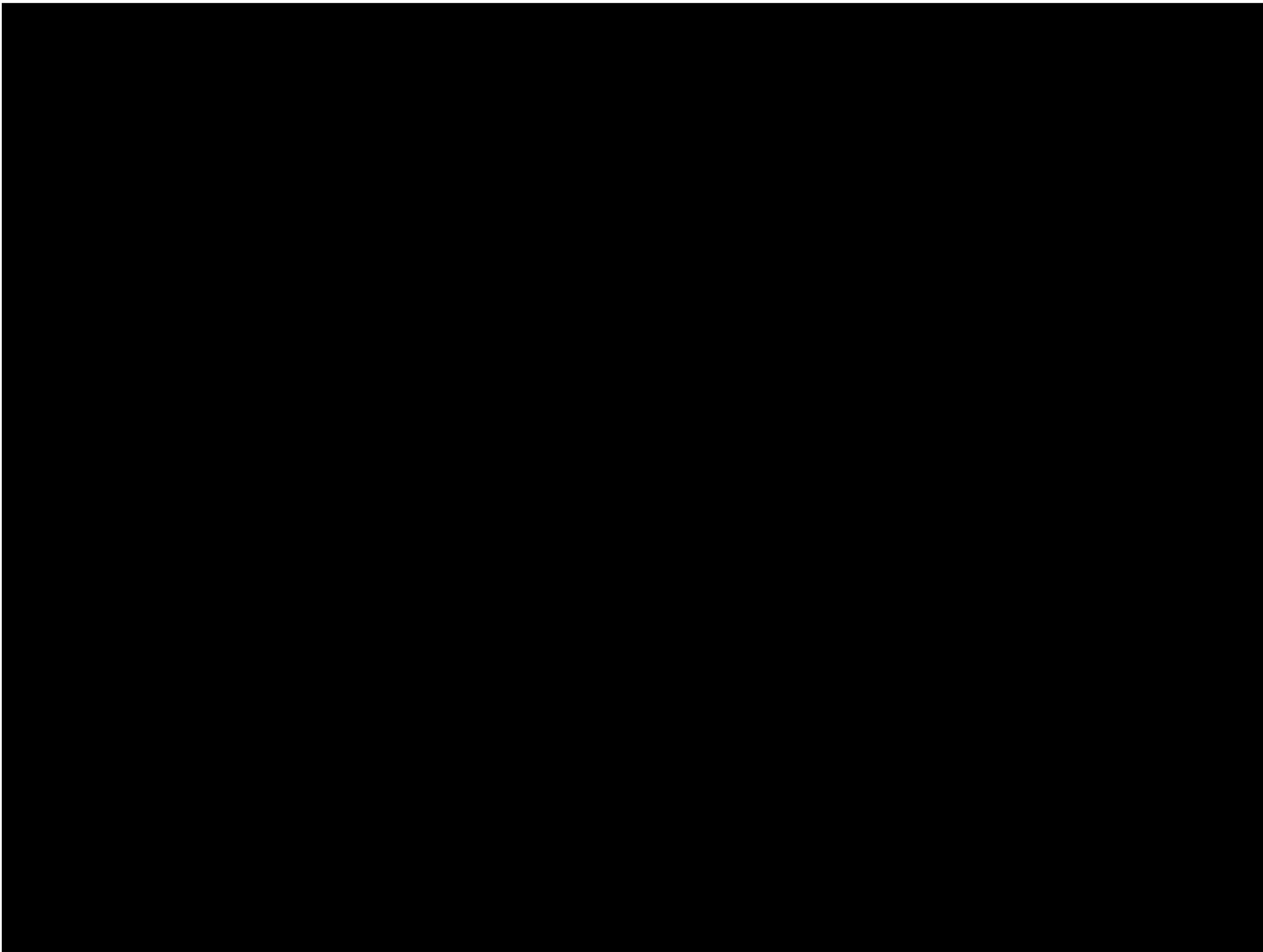
Economic Recommendations

National carbon-tax

- 1) Source tax (not use)
- 2) Levels playing field
- 3) Sets standards for economics
- 4) Achievable, understandable, predictable

Fee Based Review

- 1) No per hour charge back
- 2) Risk/reward consideration





Building companies that shape the ^{Energy} future